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ABSTRACT

Life event measurement in the Arizona State University Life Events and Aging project includes monthly assessments of both major and small life events. Major events are measured using a 96-item Psychiatric Epidemiological Research Instrument (PERI) Major Life Events Scale which concentrates on health issues and events in the experiential domain of older adults. Small events are assessed using a 199-item Older Adults Version of the Inventory of Small Life Events (ISLE). Both scales contain items in the areas of social life, finances, household, love and marriage, crime and legal matters, health and illness, employment, and school. The PERI also contains a section on family while the ISLE contains sections on children and grandchildren, extended family, recreation, religion, and transportation. The addition of a small events measure has several advantages over research measuring only major events. Preliminary data from 239 subjects showed a high test-retest correlation for both major and small health events from the first to second interview. Other findings revealed that: (1) three-quarters of the recurrent undesirable small events were due to health events; (2) event indices properly reflected group assignments for bereaved subjects (N=61), disabled subjects (N=62), and controls (N=123); and (3) there was a consistent relationship between major health events and both factors of the mental health construct. (NB)

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Improvements in Measuring Life Events in Older Adults

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Paper presented in A. J. Zautra (Chair) Third generation life event research on high-risk older adults. Symposium conducted at the 94th Annual Convention of the American Psychological Association, Washington, DC. (August, 1986).

Abstract

Life event measurement in the ASU Life Events and Aging Project includes monthly assessments of both major and small life events. The two life event scales used are described with attention to the methodological advantages they provide. The measurement of both major and small events to better evaluate the life stress process is explained. The use of separate in-depth probes of important major and small events to provide data on support, coping, and subjective appraisal of events and their outcome is discussed. Some preliminary findings are presented.

Improvements in Measuring Life Events in Older Adults

Event measurement in the ASU Life Events and Aging Project (LEAP) includes both major and small events. Major events were measured using a modified version of the Dohrenwend, Krasnoff, Askenasy, & Dohrenwend 1978 Psychiatric Epidemiological Research Instrument (PERI) Major Life Events Scale. This instrument was modified to include events in the experiential domain of older adults. This version of the PERI scale includes 96 items, which are divided into 9 areas of life concern: social life, money and financial matters, family, household, love and marriage, crime and legal matters, health and illness, employment, and school. Compared to the original PERI scale, this version concentrates more heavily on health and illness events, drops event items inappropriate for this older adult population, and expands to include events salient to older adults such as: "institutionalization of friend," "marriage of child," and "birth of grandchild."

Small events were assessed using a 199 item Older Adults Version of the Zautra and Dohrenwend Inventory of Small Life Events (ISLE) (Zautra, Guarnaccia, & Dohrenwend, in press). This version of the ISLE includes small events divided into 13 areas of life

concern: recreation, religion, money and financial matters, transportation, children and grandchildren, household, extended family, love and marriage, crime and legal matters, social life, school, health and illness, and employment. Content modifications similar to those made in the PERI scale were made in the ISLE to include small events germane to the lives of older adults and remove inappropriate events.

By measuring small as well as major events, this study provides a wider range of data. This adds detail about the stress process which would be missed if only major or small events were assessed. This broader sampling of life stressors will provide data not normally used to predict psychosocial adjustment. The added detail provided by the ISLE will improve the understanding of the adaptational challenge older adults must face after a disabling illness or bereavement. As small events occur with greater frequency than major events, small event reports in this longitudinal study lend themselves to causal analysis of the relationship with psychological outcome.

The addition of a small events measure provides a distinct advantage in studying the causal relationships

among event/outcome variables. Even with this repeated-measures longitudinal design, causal analysis would be more difficult if only major events were recorded. As small events occur much more frequently than major events, the monthly interviews provide much more life stress data with the inclusion of the ISLE. By measuring small events, in addition to major life events, a wealth of information about month-to-month life stress is made available.

The format of the ISLE used in this project takes full advantage of the high frequency of small event occurrence. In addition to simply measuring the dichotomous presence or absence of a small event within each monthly assessment, the ISLE also measures the recurrence of events within each monthly report. By combining the recurrence data contained within each interview across monthly measures comparisons between non-recurrent and recurrent events can be made both across and within monthly time periods.

The measurement of small events along a continuum from acute to chronic is particularly useful in light of the concepts of "chronic burden" (Dohrenwend & Dohrenwend, 1981) and "ongoing difficulties" (Brown & Harris, 1978) The LEAP data collection format lends

itself to quantification of these constructs. This measurement format allows testing of causal hypotheses about small events of varying degrees of chronicity as they relate to other observable variables such as major events and the latent construct of psychological adjustment.

As the ISLE was designed to be a companion to the PERI scale, there are similarities in their structures. Both these scales include events which are, at least in theory, independently observable. In this way, potential confounds between the content of items and psychological states is avoided. Without the assurance that events are not confounded with these latent constructs, any attempt to test causal paths between latent and observed variables seems useless. In addition, ratings of how independent the occurrence of an event is from the influence of the subject, allows the issue of how internal versus external factors effect the event/outcome relationship to be studied.

Within this research, events are being modeled as transactions between the person and his or her environment that are a change from normal routine. There are two components to these transactions: (i) the objectively observable event, and (ii) the person's

internal appraisal of the event and circumstances surrounding it. Recent thinking has been critical of methodological confounds that may exist when event inventories include items which are internal states. Others have questioned the external validity of event measurement which may not account for the person's cognitive appraisal of the event (cf. Dohrenwend, Dohrenwend, Dodson & Shrout, 1984; Dohrenwend & Shrout, 1985; and Lazarus, DeLongis, Folkman, & Gruen, 1985). To avoid the problem of potentially confounding measures and still touch on the internal aspects of event transactions, the PERI and ISLE events of greatest interest are probed in depth when they occur. These event probes include questions on past occurrence, coping, globality of effect, emotional reaction and outcome. In this way, the transactional nature of events can be assessed without effecting the objective nature of event reports.

Preliminary Data

Table 1 shows a high test-retest correlation for both major and small health events from the first to second interview. As can be seen three-quarters of the recurrent undesirable small events are due to health events. In addition, undesirable health events which are rated as recurrent during the first interview are more stable then those which are classified as non-recurrent during the first interview. This high test-retest correlation for recurrent undesirable events may indicate the presence of chronic health conditions.

The findings presented in Tables 2 and 3 demonstrate that event indices properly reflect group assignment. The disabled subjects, compared to any other group, suffered more than three times the number of worsening major health problems in the six months preceding the first interview. Within the month before the first interview, the disabled again had three times as many major health events as any other group. The large number of undesirable recurrent small events for the disabled is due almost exclusively to undesirable recurrent health events. The significant difference in number of major loss and fateful loss events for the bereaved is again caused by the subject selection

criteria.

Table 4 shown a consistent relationship between major health events and both factors of the mental health construct. Undesirable small events also show a strong relationship with the well-being and distress scales (which are discussed in another paper) of the overall mental-health measure. The higher correlations between the mental-health measures and recurrent as opposed to non-recurrent undesirable small events again suggests the importance of investigating the role of chronic burden events in predicting outcome.

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Table 1

Monthly Stabilities of Event Scores for Selected Indices

	First Interview (n=269)		Second Interview (n=239)		Test-Retest (n=239)
	$\bar{X}$	sd	$\bar{X}$	sd	r
Major Events					
Loss Events	0.27	0.64	0.00	0.00	
Gain Events	0.15	0.44	0.00	0.00	
Health Problem Significantly Worse	0.39	0.88	0.46	1.04	.27***
Social Loss Events	0.02	0.14	0.08	0.43	-.03
Social Gain Events	0.03	0.17	0.10	0.51	-.03
Small Events					
Undesirable Events					
Non-recurrent	6.74	4.68	5.98	4.73	.52***
Recurrent	4.10	4.19	3.18	3.66	.66***
Health Related Non-recurrent	2.74	2.57	2.46	2.15	.40***
Health Related Recurrent	3.13	3.41	2.68	3.28	.65***

*$p<.05$, **$p<.01$, ***$p<.001$

Table 2

Initial Group Differences in the Occurrence of Major Life Events

	Disabled (n=62) $\bar{X}$	Controls for Disabled (n=62) $\bar{X}$	Matched Pair T	Bereaved (n=61) $\bar{X}$	Controls for Bereaved (n=61) $\bar{X}$	Matched Pair T
Loss Events						
Past Six months	1.13	0.58	2.69**	1.80	0.67	5.61**
Past One Month	0.29	0.31	-0.14	0.23	0.25	-0.15
Gain Events						
Past Six Months	0.56	0.52	0.36	0.52	0.49	0.19
Past One Month	0.26	0.05	2.73**	0.13	0.12	0.24
Worsening Health Problem						
Past Six Months	2.68	0.74	5.70***	0.74	0.56	1.20
Past One Month	0.92	0.24	3.38***	0.31	0.10	2.87**
Health Problem Continuing not Worse	3.16	1.98	4.20***	1.82	2.05	-0.76
Fateful Loss						
Past Six Months	0.26	0.36	-0.81	1.44	0.36	9.03**
Past One Month	0.11	0.11	0.00	0.10	0.15	-0.65

*p<.05, **p<.01, ***p<.001

Table 3

Initial Group Differences in the Occurrence of Small Life Events

	Disabled (n=62) $\bar{X}$	Controls for Disabled (n=62) $\bar{X}$	Matched Pair T	Bereaved (n=61) $\bar{X}$	Controls for Bereaved (n=61) $\bar{X}$	Matched Pair T
Undesirable Events						
Non-recurrent	7.66	7.03	0.63	6.07	6.16	-0.12
Recurrent	7.48	2.94	6.54***	3.15	3.11	0.05
Health Related Non-recurrent	2.98	2.64	0.84	2.98	2.33	1.20
Health Related Recurrent	6.22	2.08	7.34***	2.39	2.13	0.55
Desirable Events						
Non-recurrent	8.58	10.05	-1.32	10.78	10.44	0.03
Recurrent	3.79	4.45	-1.19	5.10	4.49	0.83

*p<.05, **p<.01, ***p<.001

Table 4

Correlations Between Event Indices and Psychological State

(First interview)

	Well-being (n=244)	Distress (n=244)
Major Events		
Loss Events (6 months)	-.10	.20***
Social Loss Events (6 months)	-.16**	.07
Worsening Health Problem		
Past Six Months	-.17**	.28***
Past One Month	-.12*	.15**
Small Events		
Undesirable Events		
Non-recurrent	-.18**	.27***
Recurrent	-.32***	.44***
Desirable Events		
Non-recurrent	.04	-.07
Recurrent	.06	-.01

*$p<.05$, **$p<.01$, ***$p<.001$